



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/436,387	02/07/2000	ROLIN F. BARRETT JR.	133295.00111	6565
78435	7590	09/16/2010		
Pepper Hamilton LLP 400 Berwyn Park 899 Cassatt Road Berwyn, PA 19312-1183			EXAMINER GREGORY, BERNARR E	
			ART UNIT 3662	PAPER NUMBER
			MAIL DATE 09/16/2010	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

09/436,387

**Applicant(s)**

BARRETT, ROLIN F.

**Examiner**

Bernarr E. Gregory

**Art Unit**

3662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 and 30-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 30-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/02)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

1. This Office Action is in response to the Amendment of August 10, 2010.
2. In order to correct the written record, it is noted that in the first paragraph of the "Remarks" section of the Amendment of August 10, 2010 (hereinafter, "the Amendment") Applicant has referred to "Examiner Gregory Bernarr." There is no such examiner in the USPTO. This appears to be an error on the part of Applicant.
3. It is noted that Applicant has used numbering to set forth the points of argument in the "Remarks" section with the Amendment. These numbers will be used in replying to Applicant's points of argument.
4. It is noted that point 1 in the Amendment Remarks (hereinafter, "the Remarks") as to the non-compliance of the amendment of October 20, 2008 with 37 CFR 1.173 makes the point that that listing of claims was to provide a clean copy of the claims. In any case, the application of 37 CFR 1.173 would still apply to any submission as to the marking of changes to the claims and as to the parentheticals with the claim numbers. 37 CFR 1.173(b)(2) and (d). In the view of the Special Programs Examiner who must approve the application before it is passed to issue, 37 CFR 1.173 has not been complied with in the amendment of October 20, 2008, so he is not passing the case to issue for at least this defect.

5. It is noted that point 2 in the Remarks as to the lack of a proper mailing address in the declaration of November 8, 1999 has been responded to with the Amendment by the submission of a Application Data Sheet.

6. It is noted with respect to point 3 in the Remarks that Applicant has submitted a “freshly executed reissue declaration with the Office’s suggested language.” As of September 15, 2010, such a “freshly executed reissue declaration with the Office’s suggested language” is not found in the Image File Wrapper for this application. Thus, the rejection of record as to the defective reissue declaration must be maintained.

7. With respect to point 4 in the Remarks, it is noted that rejection based on a defective reissue declaration is not overcome for the reasons stated in section 6 of this Office Action.

8. With respect to point 5 in the Remarks, it is noted that the rejection of claims 1-16 and 30-32 under 35 USC §251 for improper broadening is proper at this point in that in the view of the Special Programs Examiner, who must approve this application before it is passed to issue, the case law that was applied by the Board of Patent Appeals and Interferences in its decision and treated in the Reasons for Allowance of December 24, 2004 is no longer applicable due to a change of policy by the USPTO. According to the Special Programs Examiner, the USPTO has taken a different interpretation of that case law so that it no longer would apply to this application in the way in which it was

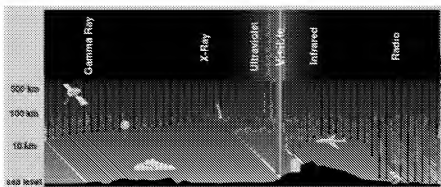
previously applied by the Board and in the Reasons for Allowance of December 24, 2004. The examiner has no authority to do anything other than accept the official position of the Special Programs Examiner. It is noted that according to the policy of Technology Center 3600 an examiner may not supply the name or the contact information for the Special Programs Examiner in a reissue application. The points raised by Applicant in the Remarks in point 5 are moot due to this change in policy as to the previously applied case law. Since Applicant has not distinctly and specifically argued the rejection under 35 USC §251 as set forth in the most recent Office Action, but has merely pointed to the prior record, the rejection under 35 USC §251 must be maintained. 37 CFR 1.111(b).

9. With respect to points 6, 7, and 8 of the Remarks, it is noted that Applicant has merely argued that "light" is strictly limited to visible light without any authority to support that contention. Light is commonly used in Physics to refer to any stream of photons, regardless of whether those photons are of wavelengths that are visible to the human eye or not. The definition of "light" turns on what it is, not on whether it can be seen by a human being. In the clip below from the website nasa.gov, it is plainly stated that gamma rays "are the most energetic form of light." As to the diagram offered by Applicant on page 5 of the Amendment, please note the use of the qualifying word "visible" in the term "visible light." The reason that one must say "visible light" is to distinguish the "visible" portions of the EM spectrum of light from the invisible ones. The restricted view of "light" that is urged by Applicant is that which is used by the common

man on the street—not by those of ordinary skill-in-the-art. A person of ordinary skill-in-the-art would be educated in Physics, and so, would know that "light" in the scientific sense refers to a stream of photons of any wavelength--visible or not.

.....

Gamma-rays travel to us across vast distances of the universe, only to be absorbed by the Earth's atmosphere. Different wavelengths of light penetrate the Earth's atmosphere to different depths. Instruments aboard high-altitude balloons and satellites like the Compton Observatory provide our only view of the gamma-ray sky.



Gamma-rays are the most energetic form of light and are produced by the hottest regions of the universe. They are also produced by such violent events as supernova explosions or the destruction of atoms, and by less dramatic events, such as the decay of radioactive material in space. Things like supernova explosions (the way massive stars die), neutron stars and pulsars, and black holes are all sources of celestial gamma-rays.

Taken from the article, "Gamma-rays" on the Internet at [science.hq.nasa.gov](http://science.hq.nasa.gov).

.....

It is noted that Applicant in points 6, 7, and 8 of the Remarks has only argued the definition of "light," and has not argued the objection to the Specification or the rejection under 35 USC 112, first paragraph. Since the remarks in sections 6, 7, and 8 of the

Remarks are not convincing, the objection to the Specification and the rejection under 35 USC 112, first paragraph are maintained.

10. With respect to points 9 and 10 of the Remarks, it is noted that Applicant has merely argued that the applied reference, Underwood ('254) does not mention the intensity of the reflected light, so that claim 30 is allegedly not anticipated by Underwood ('254). In response, it is noted that the detectors in Underwood ('254) would inherently have an intensity threshold. That is to say, the Underwood ('254) detectors would work at certain intensities of received light, and would not work at certain other intensities of light. Thus, in the broad sense, lines 5-6 of claim 30 are met by Underwood ('254) in that any output or lack of output from the detectors in Underwood ('254) would be a function of the intensity of the received light. As stated in the rejection, the "electrical signals from these four quadrants would be in some sense a function of the intensity of the light reflected light [sic] from target 14 that reaches four-quadrant PIN diode 14." This statement in the Office Action has not been distinctly and specifically addressed. 37 CFR 1.111(b). Applicant has merely stated that there is no mention of intensity in Underwood ('254), so that the rejection of claim 30 as being anticipated by Underwood ('254) allegedly will not stand. Therefore, the arguments with respect to the prior art rejection of claim 30 are not persuasive, so the prior art rejection of claim 30 is hereby maintained. The rejections of dependent claim 31 and independent claim 32 are maintained for substantially the same reasons.

11. The maintained objections and rejections from the previous Office Action are repeated below.

12. The amendment of October 20, 2008 is non-compliant with 37 CFR 1.173 for being in improper format. In addition, the amendment of October 20, 2008 does not comply with 37 CFR 1.173(c) in that it does not clearly show the support for the new claims in the disclosure.

13. The reissue oath/declaration filed with this application is defective (see 37 CFR 1.175 and MPEP § 1414) because of the following:

The error recited in the June 20, 2000 Declaration is not satisfactory. The Applicant needs to explain how the newly-added claim 32 differs from the original claim 1 (the claim the Applicant recites as containing the error) with respect to the error in claim 1 being corrected. The phrase, "overlimits the scope of the claim" should be changed to language that states that the means language causes the claim to be narrower than is necessary for patentability.

14. Claims 1-16 and 30-32 are rejected as being based upon a defective reissue declaration under 35 U.S.C. 251 as set forth above. See 37 CFR 1.175.



The nature of the defect(s) in the declaration is set forth in the discussion above in this Office action.

15. Claims 1-16 and 30-32 are rejected under 35 U.S.C. 251 as being an improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is based. See *Pannu v. Storz Instruments Inc.*, 258 F.3d 1366, 59 USPQ2d 1597 (Fed. Cir. 2001); *Hester Industries, Inc. v. Stein, Inc.*, 142 F.3d 1472, 46 USPQ2d 1641 (Fed. Cir. 1998); *In re Clement*, 131 F.3d 1464, 45 USPQ2d 1161 (Fed. Cir. 1997); *Ball Corp. v. United States*, 729 F.2d 1429, 1436, 221 USPQ 289, 295 (Fed. Cir. 1984). A broadening aspect is present in the reissue which was not present in the application for patent. The record of the application for the patent shows that the broadening aspect (in the reissue) relates to claim subject matter that applicant previously surrendered during the prosecution of the application. Accordingly, the narrow scope of the claims in the patent was not an error within the meaning of 35 U.S.C. 251, and the broader scope of claim subject matter surrendered in the application for the patent cannot be recaptured by the filing of the present reissue application.

The independent claims 30 and 32 recapture broadened claimed subject matter in that each of these independent claims added during reissue is broader than independent claims 1 and 11 in that patent at least in that claims 30 and 32 are directed solely to the light-processing aspect of the invention, which omit the "steering control" aspects of claims 1 and 11 of the patent and the "power supply means" of claim 1 of the

patent. Particularly, in claim 32, the addition of the "steering control means" and the "power supply means" in patent claim 1 was a narrowing for which the breadth of claim 32 can not be recaptured. Similarly, in claim 30, the added method steps in patent claim 11 of "illuminating the target with a laser"; "firing said bullet from a precision sniper rifle having a smooth internal bore at said target"; "generating corrective signals in response to said electrical impulses" and "actuating said steering control means in response to said corrective signals in a manner to deflect air flow about said bullet to impart a correctional momentum to said bullet whereby said bullet is translated toward said optimum trajectory to impact said target" was a narrowing for which the breadth of claim 30 can not be recaptured. Dependent claim 31 recaptures in that it depends from independent claim 30, which recaptures. There appears to be nothing on the record that would indicate that the narrowing of claimed subject matter relating to claims 1 and 11 of the patent was done in error.

16. The Specification is hereby objected to under 37 CFR 1.71 in that it would not teach one of ordinary skill-in-the-art how to make and to use the invention commensurate in scope with the claims without undue experimentation.

Throughout the entire disclosure of the patent that is the subject of this reissue, the light source in a "laser." For example, see column 2, lines 55-67 of United States Patent 5,788,178 A. However, the claims 30-32 that have been added during reissue state that the energy in the apparatus and method is "light." Light would include the entire electromagnetic spectrum, but Applicant has only

disclosed laser light. Applicant has not disclosed the use of non-laser-light portions of the electromagnetic spectrum, such as RF, X-rays, and  $\gamma$ -rays. The apparatus and method for practicing the invention for non-laser-light portions of the spectrum would be so different than the apparatus and method disclosed for laser light that one of ordinary skill-in-the-art could neither make nor use the invention without undue experimentation. Thus, claims 30-32 are not enable be the Specification for non-laser-light portions of the spectrum. Claims must be enabled for their full breadth Sitrick v. Dreamworks, 516 F.3d 993 (Fed. Cir. 2008). Auto Techs. Int'l., Inc. v. BMW of N. Am., Inc., 501 F.3d 1274, 1285 (Fed. Cir. 2007).

17. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

18. Claims 30-32 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for laser light, does not reasonably provide enablement for non-laser-light portions of the electromagnetic spectrum. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and to use the invention commensurate in

scope with these claims. See the remarks with the objection to the Specification in section 6 above.

19. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

20. Claims 30-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Underwood ('254).

With respect to independent claim 30, the method step of "sensing the reflection of light reflected off the target by at least two light detectors carried on the bullet" is met by the action of sensing of light reflected from target 14 in Figure 1 of Underwood ('254) as detected by two or more of the quadrants of the four-quadrant PIN diode 12. Please note that Underwood ('254) relates to a "missile" (column 3, lines 1-5). In the broad sense of the word "missile," the word refers to any object that is through space in a path, which would include a "bullet," as claimed.

As for the next method step of independent claim 30 of "each light generating an electrical signal that is a function of the intensity of the reflected light sensed by the light detector," this is met by the generating of an electrical signal by the four-quadrant PIN diode 12 in Figure 1 of Underwood ('254). The electrical signal from these quadrants

would be in some sense a function of the intensity of the light reflected light from target 14 that reaches the four-quadrant PIN diode 14.

The final step of independent claim 30 of "comparing, on board the bullet, the electrical signals of each light detector and producing an output signal that is a function of the bullet reorientation required to cause the electrical signals to approximate or equal each other" is met by the operation of at least the differential amplifier 40 and the limiter 42 in comparing the outputs of the four quadrants of the detector 12 in Figure 1 of Underwood ('254). The outputs of the quadrants are compared and are used to produce the steering commands 44 in Figure 1 of Underwood ('254). The four-quadrant detector 12 in Figure 1 of Underwood ('254) will steer the missile or bullet until the outputs of the quadrants are substantially equal, as claimed.

Since each and every method step of claim 30 is met by Underwood ('254), claim 30 is anticipated by Underwood ('254).

As for the further limitations of dependent claim 31, this is met in Figure 1 of Underwood ('254) by the four quadrant outputs where A is compared to C and D; and B is compared to C and D; and C is compared to A and B; and D is compared to A and B. The comparing is met at least by the action of the differential amplifier 40 in Figure 1 of Underwood ('254).

The remarks with respect to independent, apparatus claim 32 are substantially those given above with respect to corresponding independent, method claim 30.

21. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernarr E. Gregory whose telephone number is (571) 272-6972. The examiner can normally be reached on weekdays from 6:30 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza, can be reached on (571) 272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Bernarr E. Gregory/  
Primary Examiner, Art Unit 3662